

# Notice of Allowability

Application No.

10/805,723

Examiner

Shawn Riley

Applicant(s)

GRITTER, DAVID J.

Art Unit

2838

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to March 2004 filing.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 17 June 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date june2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**SHAWN RILEY**  
**PRIMARY EXAMINER**

**DETAILED ACTION****Reasons for Allowance**

1. The following is an examiner's statement of reasons for allowance: No prior art uncovered anticipates or renders obvious applicant(s) claimed power system associated with a three phase line including two phase x and y axis sequence components a stationary to rotating reference frame converter responsive to the x and y axis sequence components and to an angle signal for generating rotating D and Q axis sequence components wherein the D and Q axis sequence components have a phase determined by the angle signal; a phase locked loop (PLL) responsive to a selected one of the rotating D and Q axis sequence components for generating the angle signal, wherein the PLL comprises a notch filter.
2. No prior art uncovered anticipates or renders obvious applicant(s) claimed notch filter including a summer circuit having a first input port to which a filter input signal is coupled, a second input port, and an output port at which a filtered signal is provided; and a generalized integrator having a first input port coupled to the output port of the summer circuit, a second input port responsive to a control signal, and an output port at which an error signal is provided, wherein the output port of the generalized integrator is coupled to the second input port of the summer circuit and wherein the generalized integrator is tuned to the frequency of the control signal.

No prior art uncovered anticipates or renders obvious applicant(s) claimed a filter having an input port coupled to the output port of the regulator and an output port, said filter including a summer circuit having a first input port coupled to the output port of the PI regulator, a second input port and an output port at which a filtered signal is provided; and a generalized integrator

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having a first input port coupled to the output port of the summer circuit, a second input port responsive to a control signal, and an output port at which an error signal is provided, wherein the output port of the generalized integrator is coupled to the second input port of the summer circuit and wherein the generalized integrator is tuned to the frequency of the control signal; an integrator having an input port coupled to the output port of the filter and an output and port at which the angle signal is provided.

No prior art uncovered anticipates or renders obvious applicant(s) claimed phase locked loop (PLL) for generating an angle signal for use in converting a stationary reference frame signal to a synchronous reference frame signal including a notch filter having an input port coupled to an output port of said regulator and an output port at which a filtered signal is provided, said notch filter being tuned in response to a control signal; and a circuit coupled to the output port of said notch filter and responsive to the filtered signal for generating said control signal, wherein the control signal has a level related to the frequency of the regulator input signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Allowable Subject Matter*

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1. Claims 1-20 are allowable over the prior art of record.

### *Conclusion*

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 571.272.2084. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax MUST BE sent to fax number 703.872.9306. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

June 05



*Shawn Riley*  
*Primary Examiner*